

## Fish Passage Plan (FPP) Change Form

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**Change Form # & Title:** 24LGS003 – Governor Oil Balancing  
**Date Submitted:** 27-DEC-2023; Revised 1-FEB-2024  
**Project:** Little Goose Lock and Dam  
**Requester Name, Agency:** Deborah L. Snyder, USACE NWW  
**Final Action:** FINALIZED 1-FEB-2024

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**FPP SECTION:** Chapter 8 – Little Goose Dam, section 4.1 and Table LGS-6, and section 4.3

### **JUSTIFICATION FOR CHANGE:**

On October 17, 2022, Little Goose experienced a forced outage of priority unit 1. The outage investigated increased oil usage levels that confirmed a turbine oil leak initiating subsequent extended unit annual maintenance and scrutiny. The oil escapement event revealed the need to accurately record and track the volume of oil for each individual turbine unit in real-time.

As a result, Little Goose is currently working towards procurement and installation of a system designed to accurately provide continual and instantaneous oil accountability of each turbine unit both in and out of operations. Until the newly planned system is successfully deployed, Little Goose is requesting interim measures to manually monitor and execute enhanced unit governor oil accountability.

**PROPOSED CHANGE:** *New addition to section 4.3. Turbine Unit Maintenance.*

**4.3.11. Turbine Unit Outages for Governor Oil Balancing.** Dependent upon generation and flow requirements, monthly short term priority unit deviations may be necessary to conduct generator unit governor oil balancing evaluations. Governor oil balancing will be utilized as a technique to accurately measure and track unit oil level trends to monitor for potential oil leaks. Each available operating unit will be shut down for 1 – 3 hours and placed in a static state to conduct oil accountability once the oil is cooled and settled.

- i. Unit balancing will be coordinated during VBS/ESBS and / or trash raking outages during months where those are scheduled, and conditions allow.
- ii. Unit balancing would be deferred week to week during high-flow conditions when all available units are operating to limit TDG and other river conditions that may negatively affect fish passage, or until such time 1 unit becomes idle.
- iii. Out of priority unit balancing operations will be performed with schedule flexibility in consideration of section 1.2.2.3 and Figure LGS-2, “Time-of-day (diel)” to minimize adult fish passage impacts.

**iii-IV.** Priority units will be taken out of service as late in the day as possible to reduce impacts to adult salmonids. The priority unit (i.e., Unit 1, or the first available unit in the priority order) will not be shut down for oil balancing during spring performance standard spill (30%) in order to maintain optimum conditions for adult passage during that period.

## **COMMENTS:**

1-FEB-2024, Trevor Conder, NOAA:

I would like to see some language that states the priority unit, (i.e., unit 1 or next in order) will not be shut down for oil balancing during the performance spill (30%) period. This is to maintain continuous adult passage during that period. This would still give the project the afternoon to do this work, and an MFR/MOC can be provided if absolutely necessary to do it in the morning during a performance spill. I will make this comment at the meeting today.

1-FEB-2024, Chris Peery, Corps NWW:

I do not see an issue with this suggestion. Point iii in the added language sorta addresses this with the "time-of-day" statement. But it can be more explicit.

1-FEB-2024, FPP meeting:

Lorz requested adding language so that if priority units are affected, they be taken out of service as late in the day as possible.

Cole Reeves, Corps LGS, said the project can accommodate those changes requested by Lorz and Conder.

**RECORD OF FINAL ACTION:** Finalized as revised at the FPOM FPP meeting 1-FEB-2024.